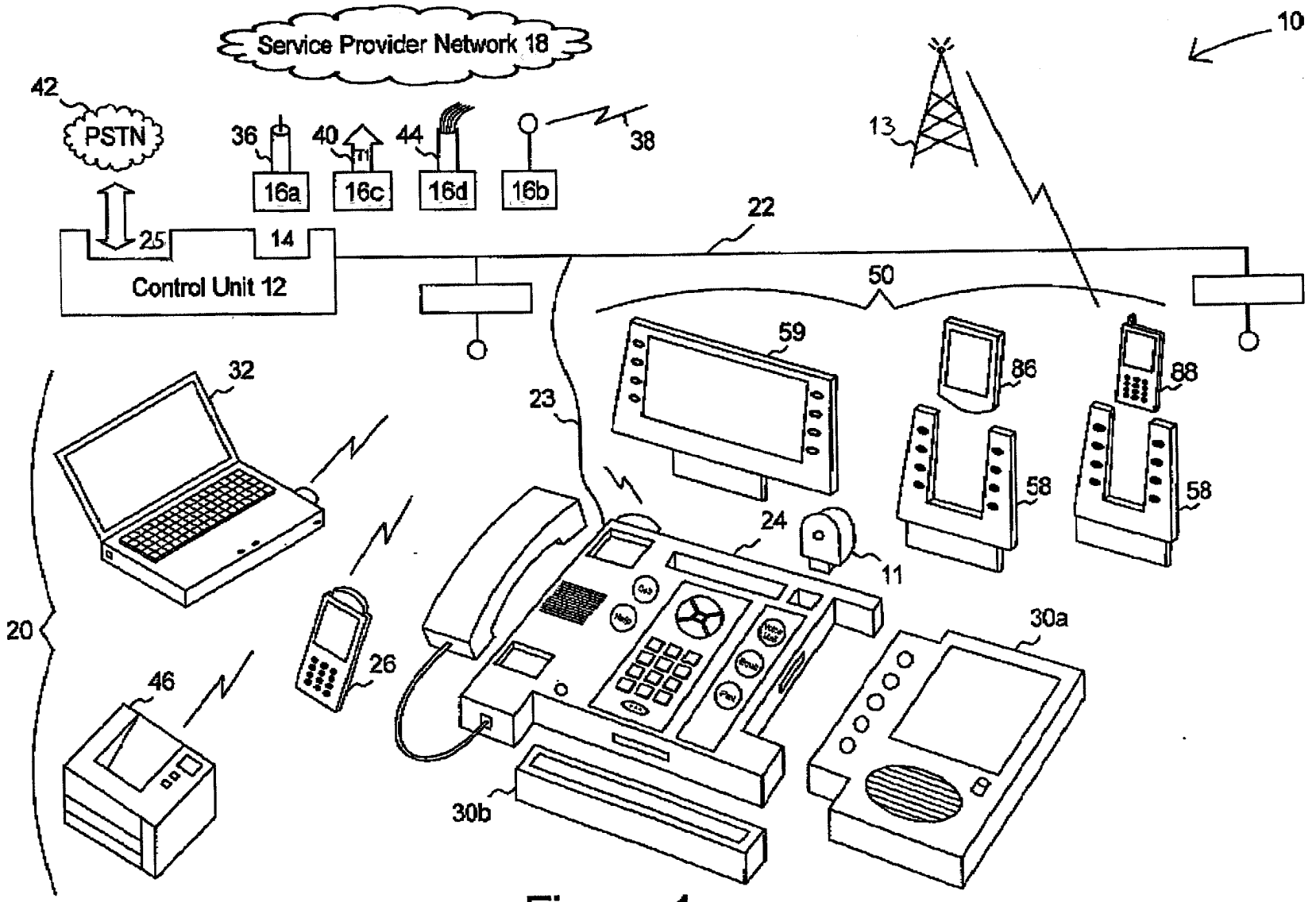
Service Provider Network 18
10
42
PSTN
36
40
44
38
13
16a
16c
16d
16b
22
25
14
Control Unit 12
50
59
86
88
32
23
58
58
24
11
20
30a
26
46
30b

Figure 1

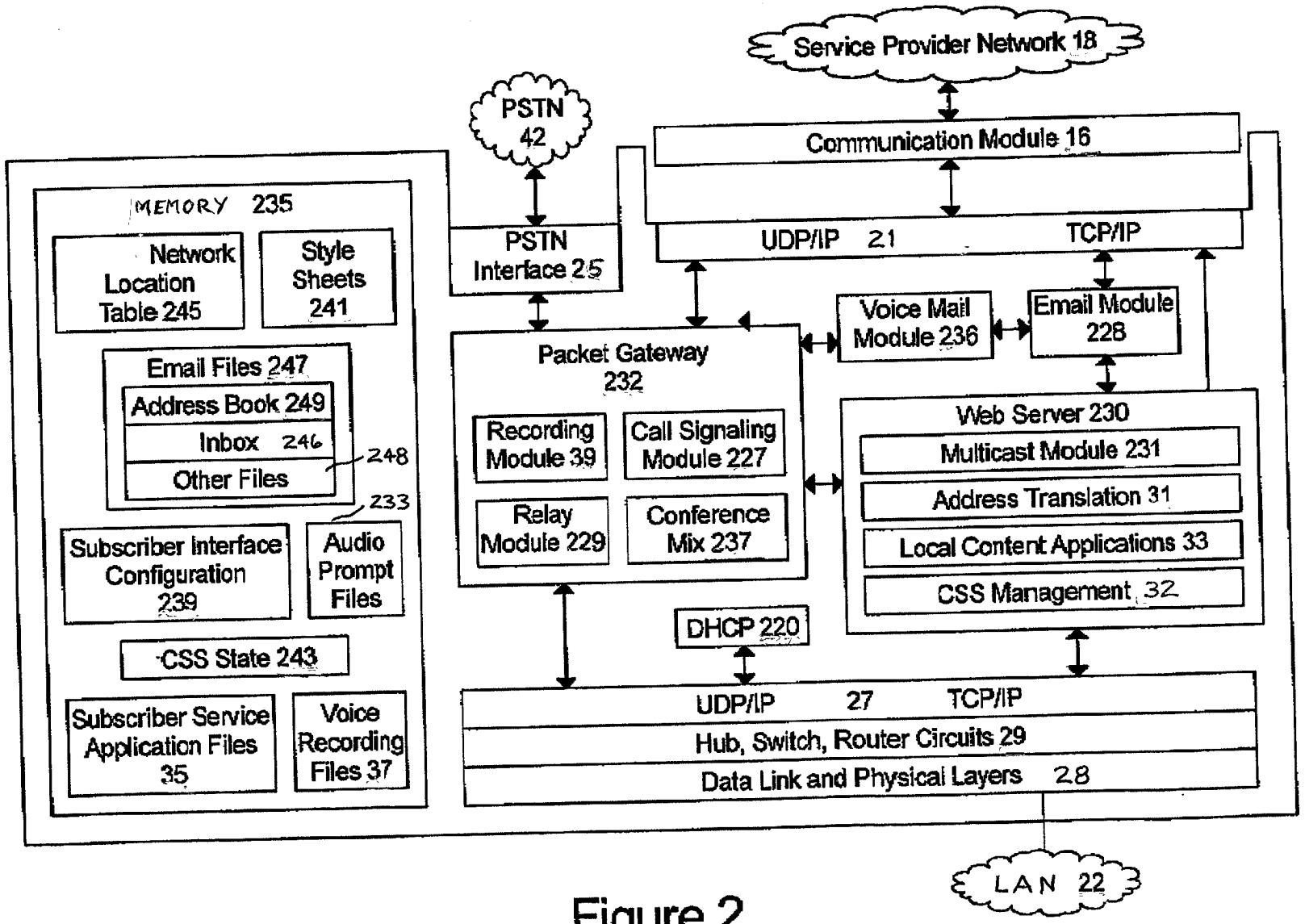
Service Provider Network 18
PSTN 42
Communication Module 16
MEMORY 235
Network Location Table 245
Style Sheets 241
PSTN Interface 25
UDP/IP 21
TCP/IP
Email Files 247
Address Book 249
Inbox 246
Other Files
248
233
Voice Mail Module 236
Email Module 228
Packet Gateway 232
Recording Module 39
Call Signaling Module 227
Relay Module 229
Conference Mix 237
Web Server 230
Multicast Module 231
Address Translation 31
Local Content Applications 33
CSS Management 32
Subscriber Interface Configuration 239
Audio Prompt Files
CSS State 243
DHCP 220
Subscriber Service Application Files 35
Voice Recording Files 37
UDP/IP 27 TCP/IP
Hub, Switch, Router Circuits 29
Data Link and Physical Layers 28
LAN 22

Figure 2

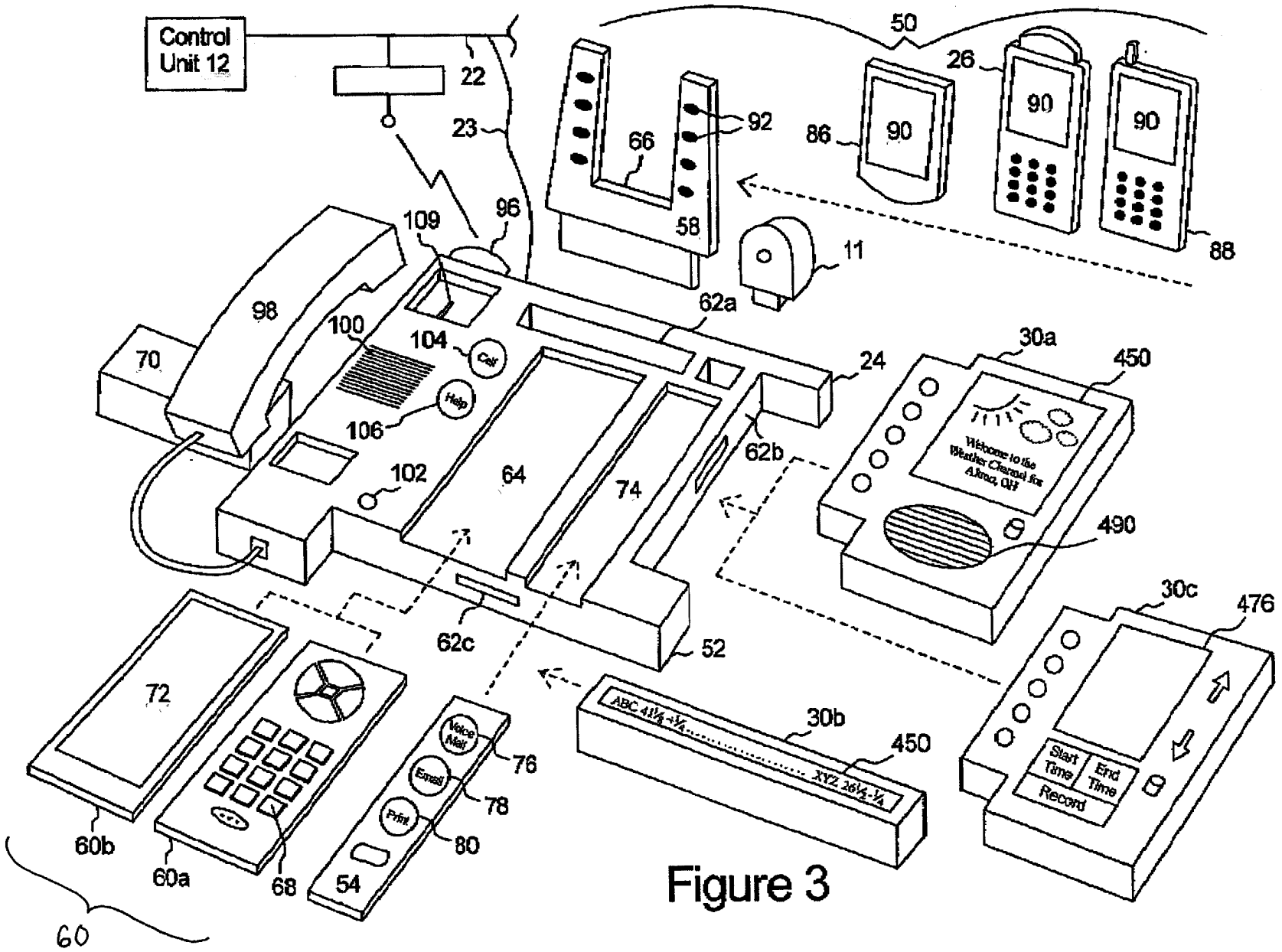
Control Unit 12
22
23
50
26
90
90
90
86
92
66
58
88
11
109
96
98
100
104
Car
Help
106
70
62a
24
30a
450
102
64
74
62b
490
30c
476
62c
52
72
30b
450
Voice Mail
Email
Print
76
78
80
60b
60a
68
54
60
Start Time
End Time
Record

Figure 3

20080229600

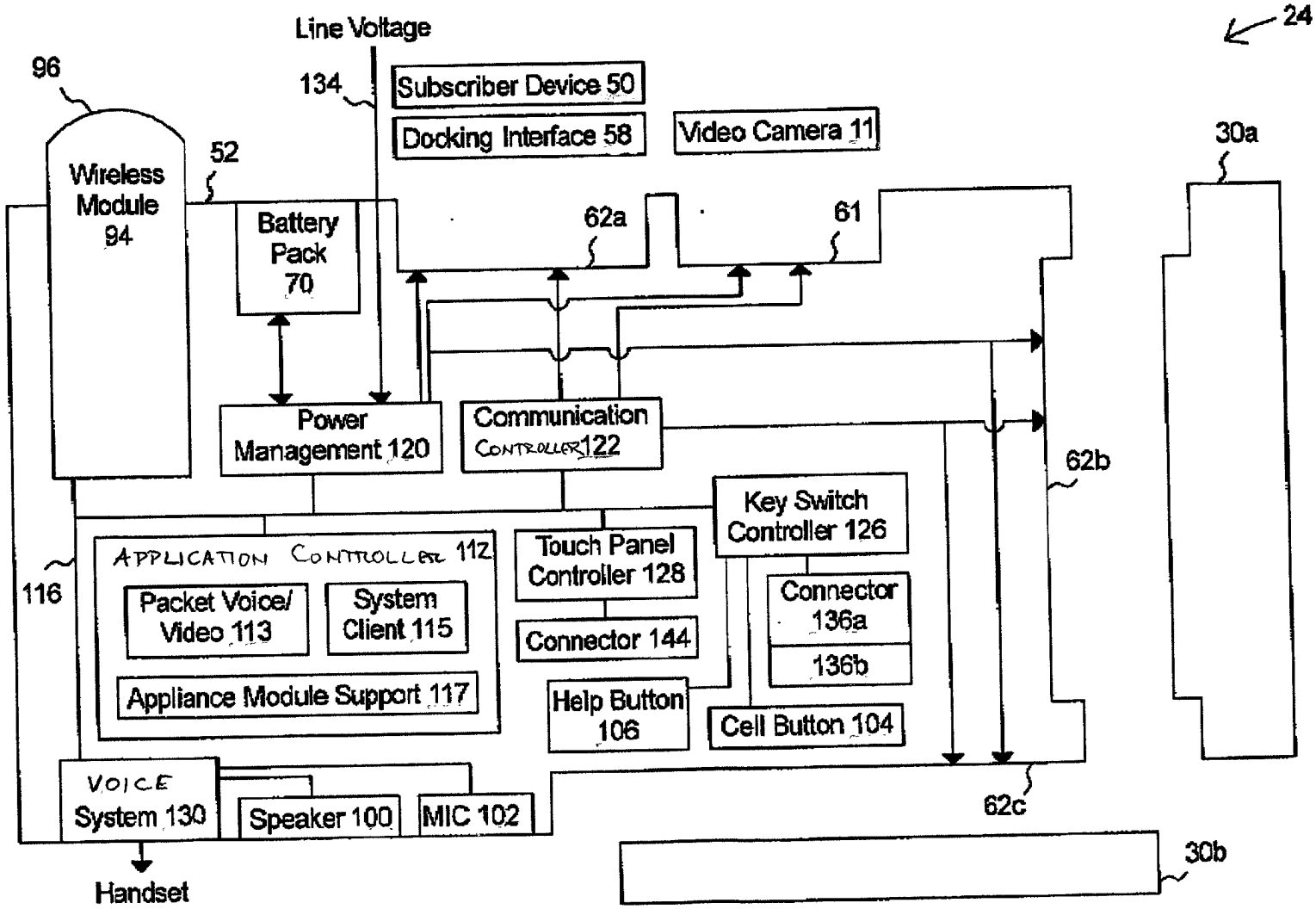

Figure 4

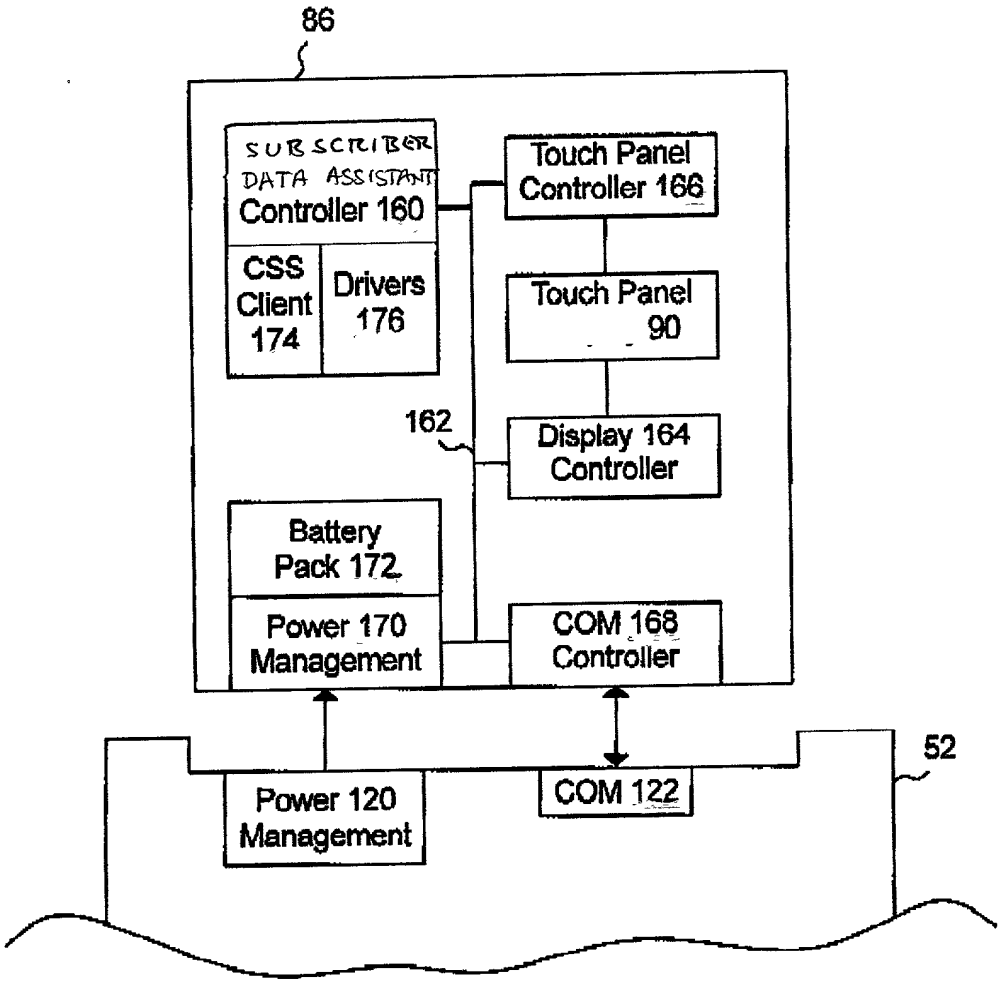
86
SUBSCRIBER DATA ASSISTANT Controller 160
CSS Client 174
Drivers 176
Touch Panel Controller 166
Touch Panel 90
162
Display 164 Controller
Battery Pack 172
Power 170 Management
COM 168 Controller
52
Power 120 Management
COM 122

Figure 5

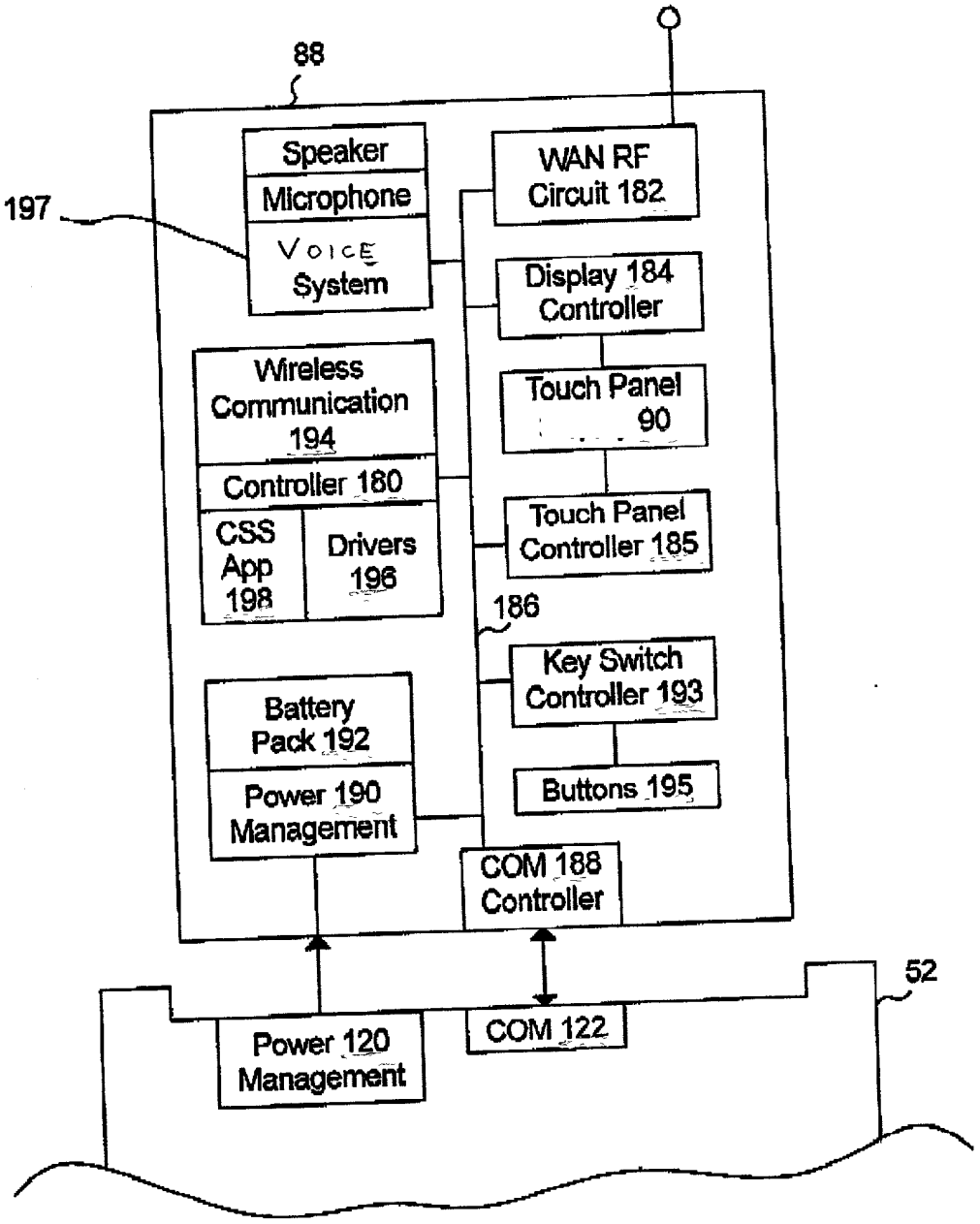
88
197
Speaker
Microphone
Voice System
WAN RF Circuit 182
Display 184 Controller
Wireless Communication 194
Controller 180
CSS App 198
Drivers 196
Touch Panel 90
Touch Panel Controller 185
186
Key Switch Controller 193
Buttons 195
Battery Pack 192
Power 190 Management
COM 188 Controller
52
Power 120 Management
COM 122

Figure 6

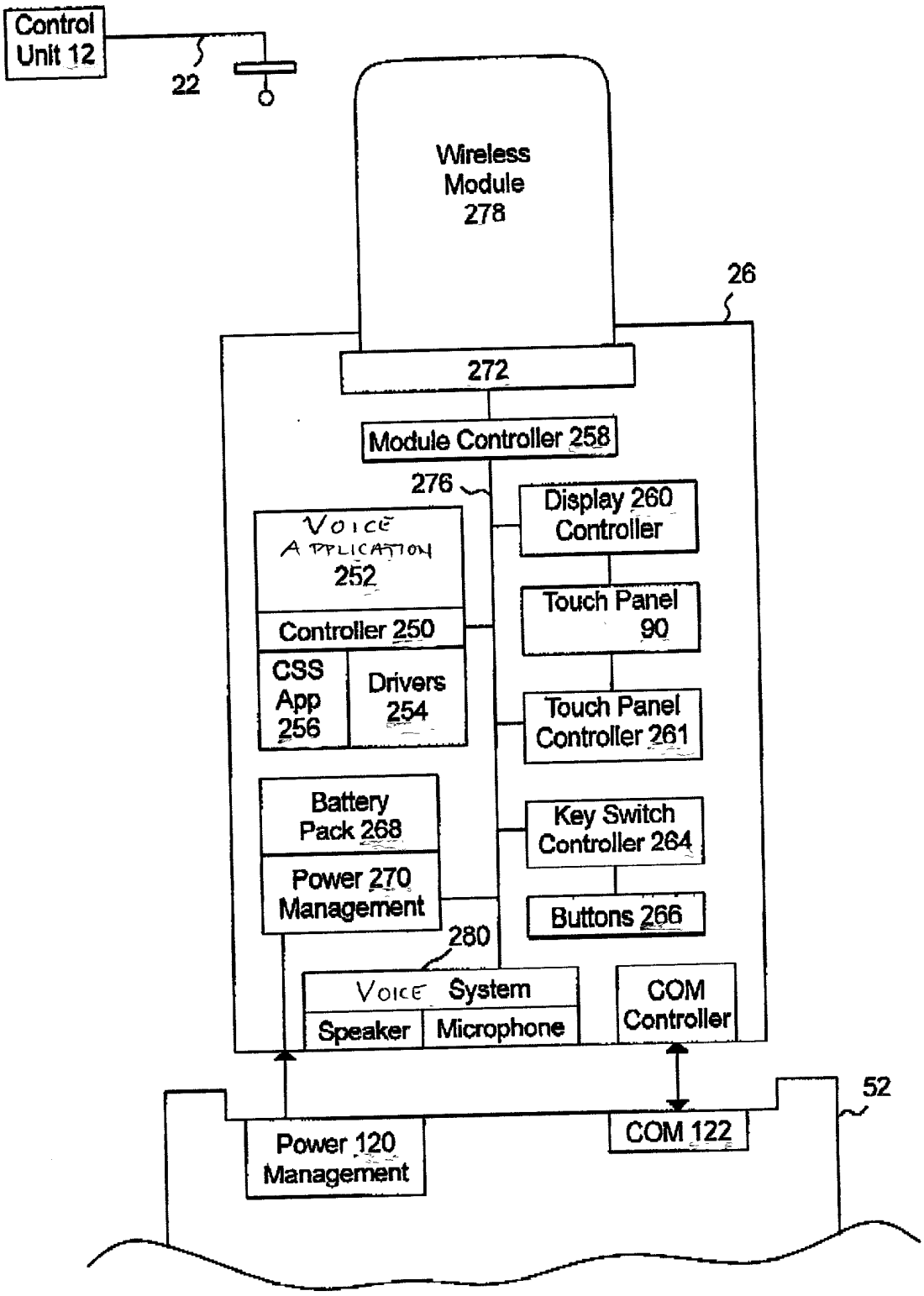
Control Unit 12
22
Wireless Module 278
26
272
Module Controller 258
276
Voice Application 252
Controller 250
CSS App 256
Drivers 254
Display 260 Controller
Touch Panel 90
Touch Panel Controller 261
Key Switch Controller 264
Buttons 266
Battery Pack 268
Power 270 Management
280
Voice System
Speaker
Microphone
COM Controller
52
Power 120 Management
COM 122

Figure 7

245

Subscriber Identifier
237

Current Network Address Table

Subscriber ID	Subscriber Name	Subscriber Device ID Code	Current Network Address
1234	Bob	001	192.168.abc.xyz
1235	Chris	002	192.168.def.uvw
1236	Marvin	003	Open
•	•	•	•
•	•	•	•
•	•	•	•

251

Figure 8a

249

Address Book

Group Name	Members	Contact Information
All Campus	Annette, Bill, Cindy, Dan, Elain . . .	xxxxx
Building A	Annette, Bill, Homer, Irene	xxxxx
•	•	
•	•	
•	•	
Annette	Annette	Email, Telephone, etc.

Figure 8b

SUBSTITUTE SHEET

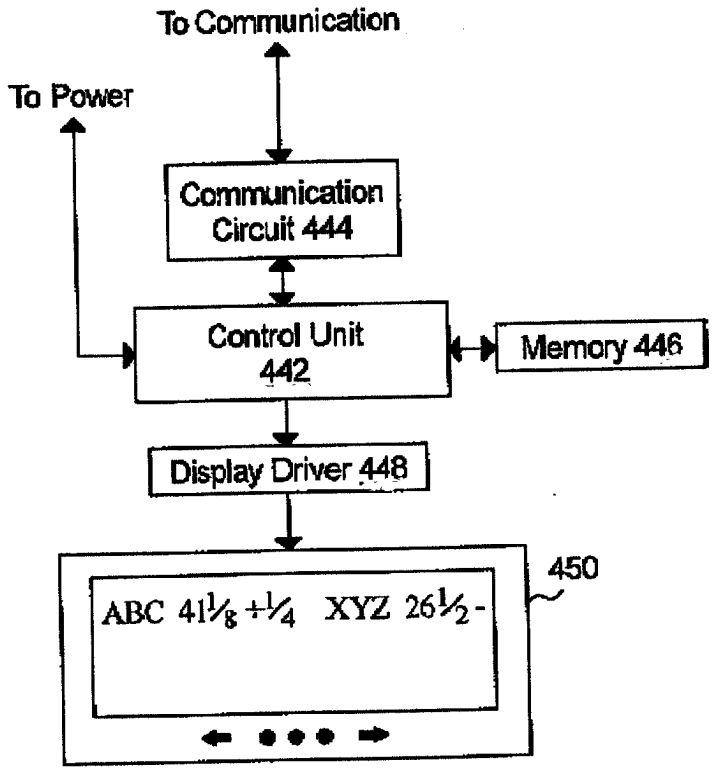

Figure 9

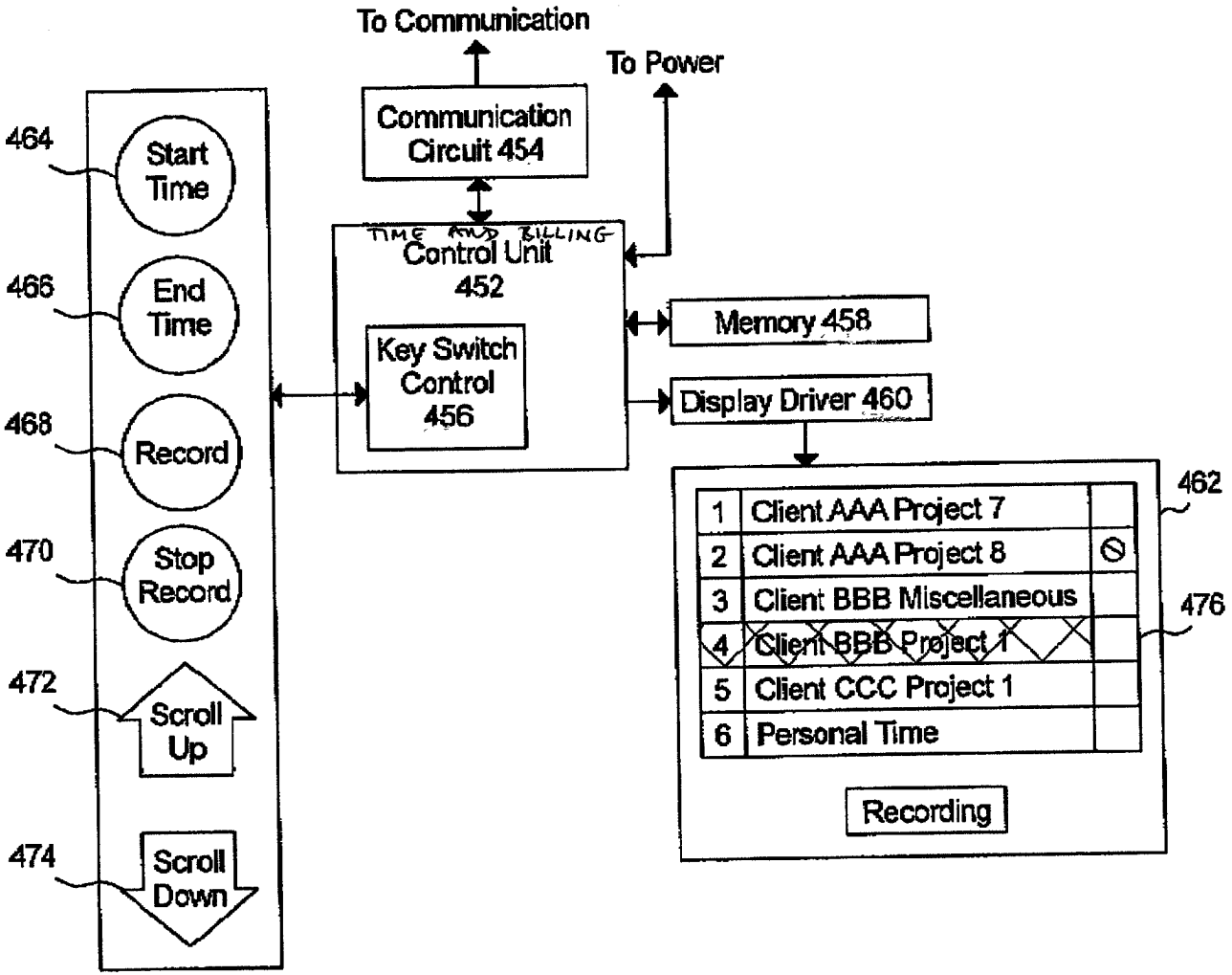
To Communication
To Power
Communication Circuit 454
TIME AND BILLING
Control Unit 452
Key Switch Control 456
Memory 458
Display Driver 460
464
Start Time
466
End Time
468
Record
470
Stop Record
472
Scroll Up
474
Scroll Down
462
1 Client AAA Project 7
2 Client AAA Project 8
3 Client BBB Miscellaneous
4 Client BBB Project 1
5 Client CCC Project 1
6 Personal Time
476
Recording

Figure 10

20080804-222346001

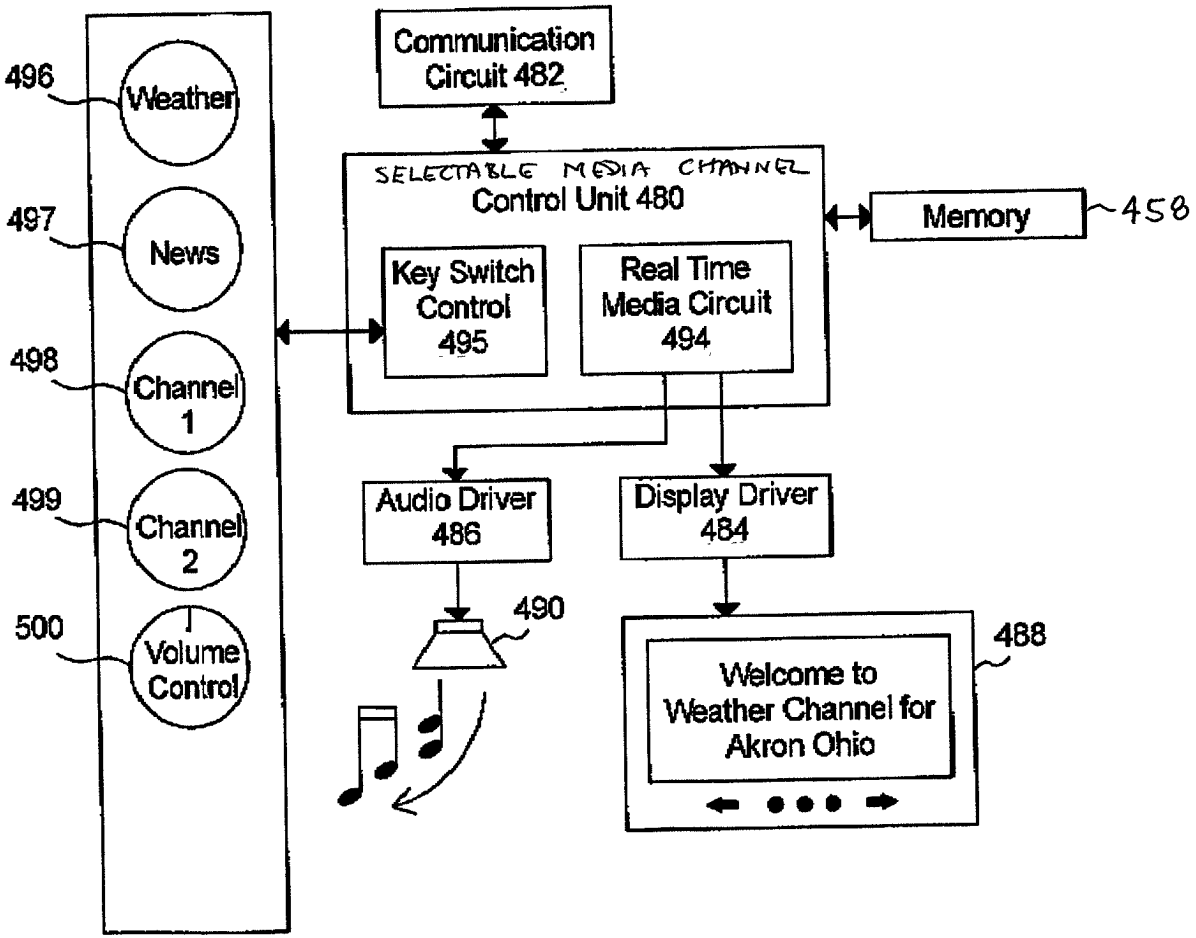

Figure 11

20060224004

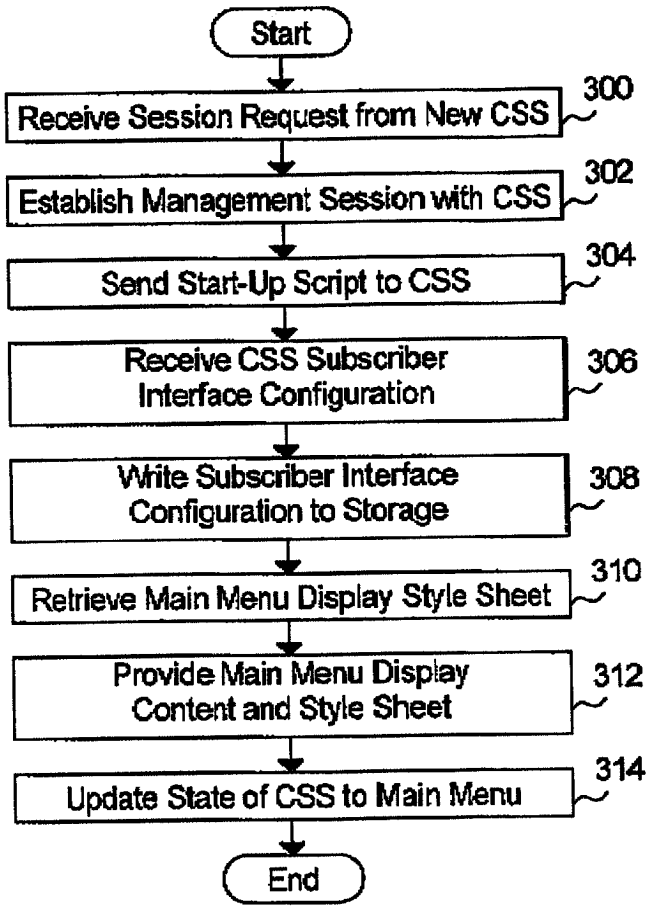

Figure 12a

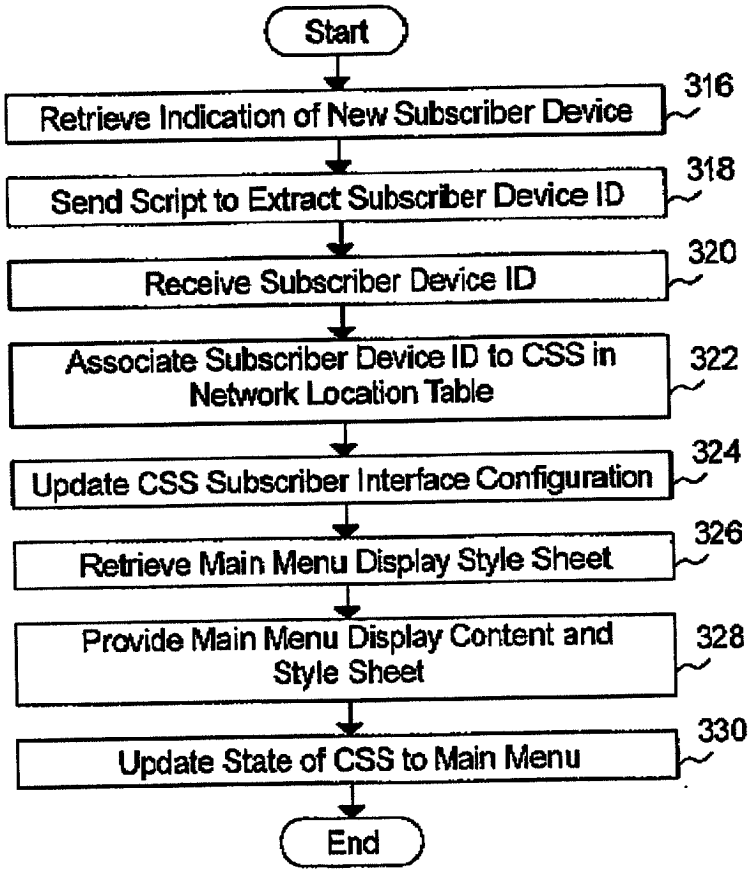

Figure 12b

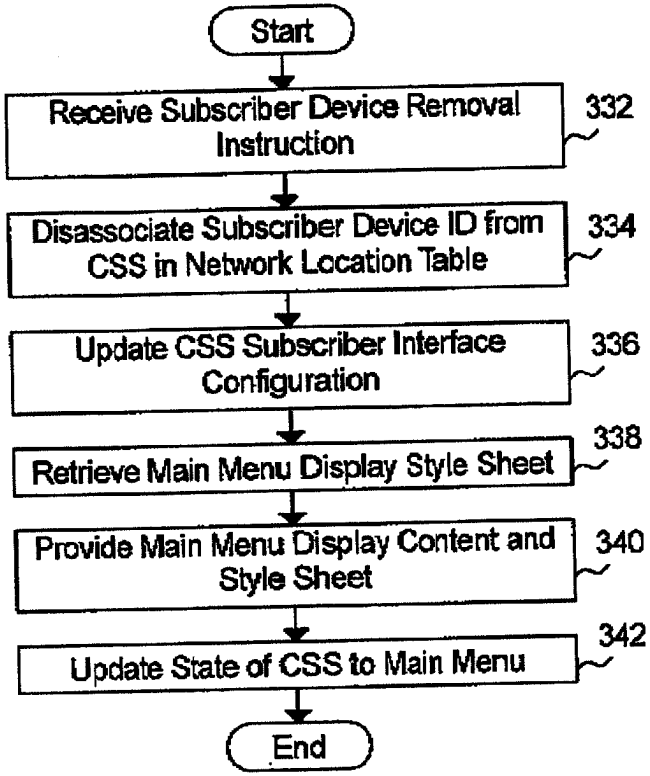

Figure 12c

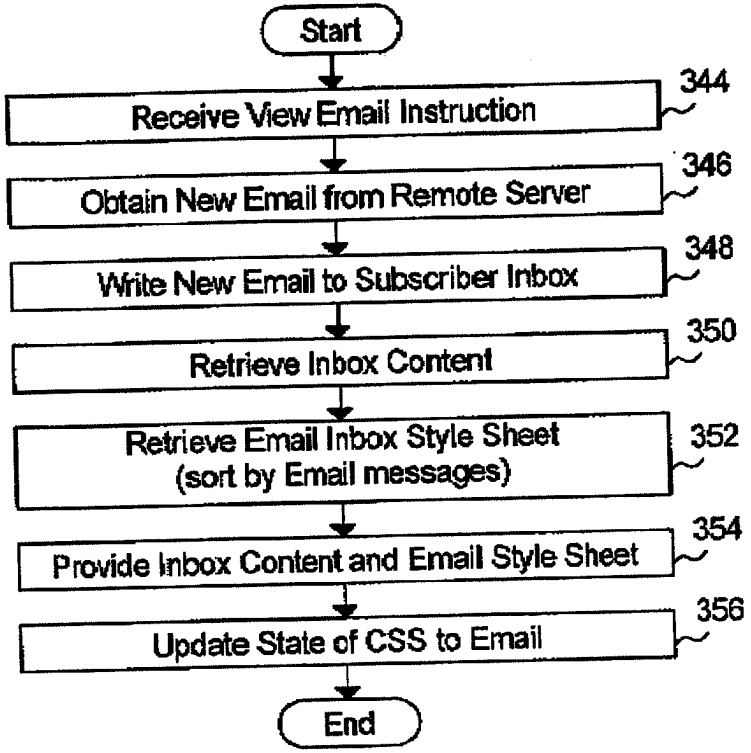

Figure 12d

20060 22250T

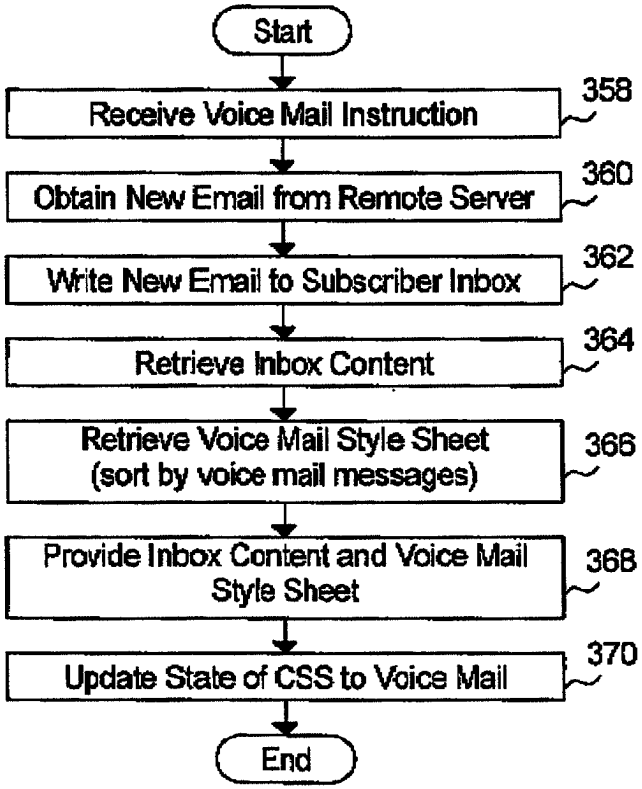

Figure 12e

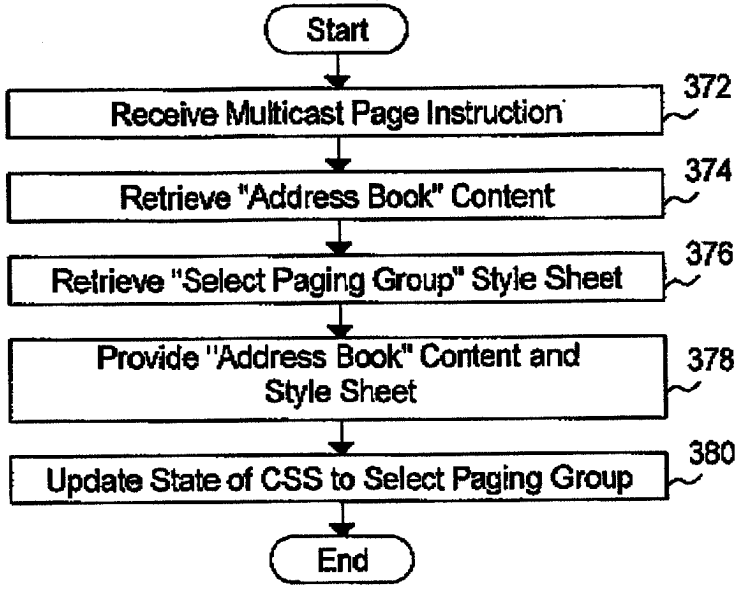

Figure 12f

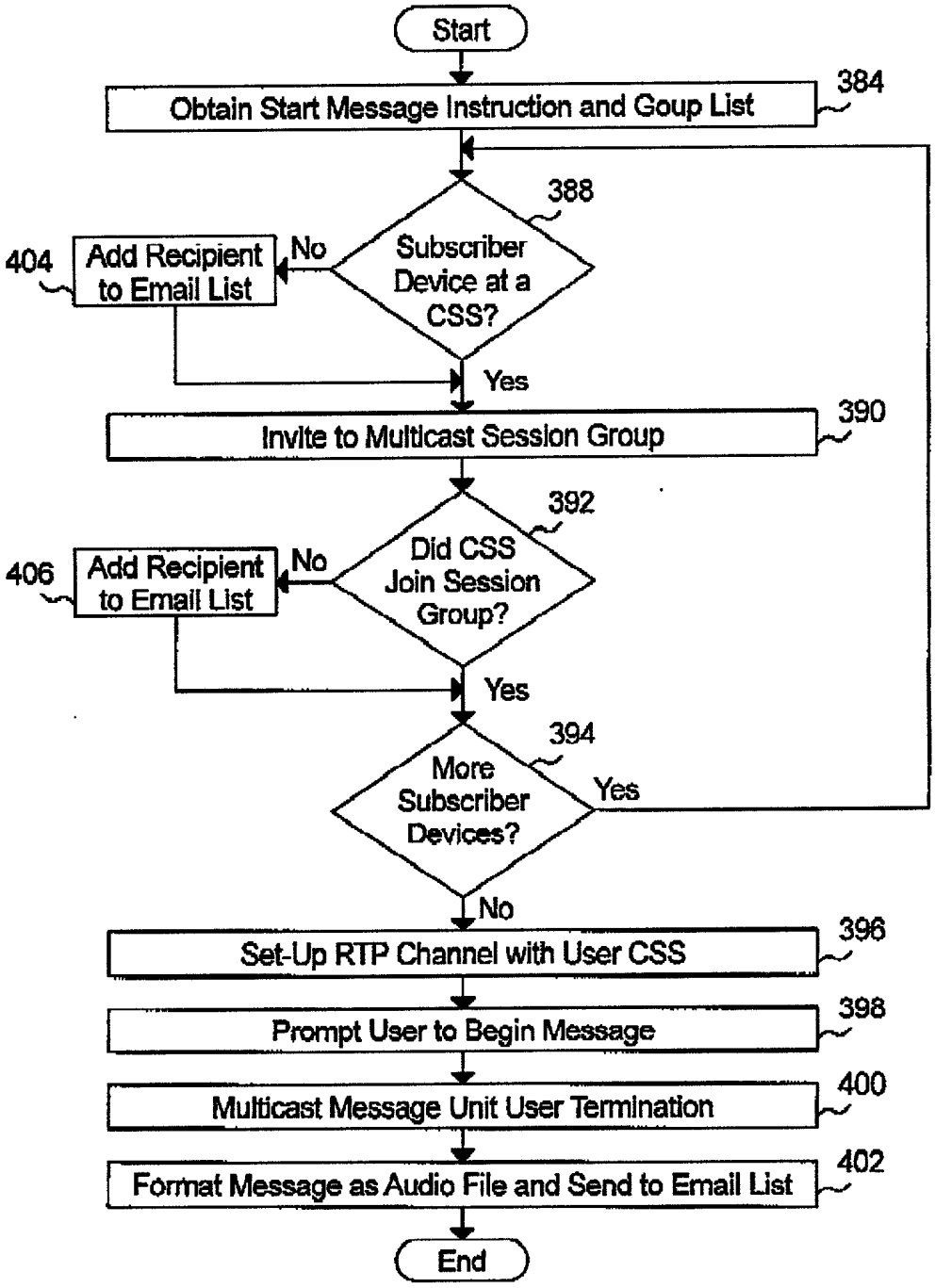
Start
Obtain Start Message Instruction and Goup List
384
388
Subscriber Device at a CSS?
No
404
Add Recipient to Email List
Yes
Invite to Multicast Session Group
390
392
Did CSS Join Session Group?
No
406
Add Recipient to Email List
Yes
394
More Subscriber Devices?
Yes
No
Set-Up RTP Channel with User CSS
396
Prompt User to Begin Message
398
Multicast Message Unit User Termination
400
Format Message as Audio File and Send to Email List
402
End

Figure 12g

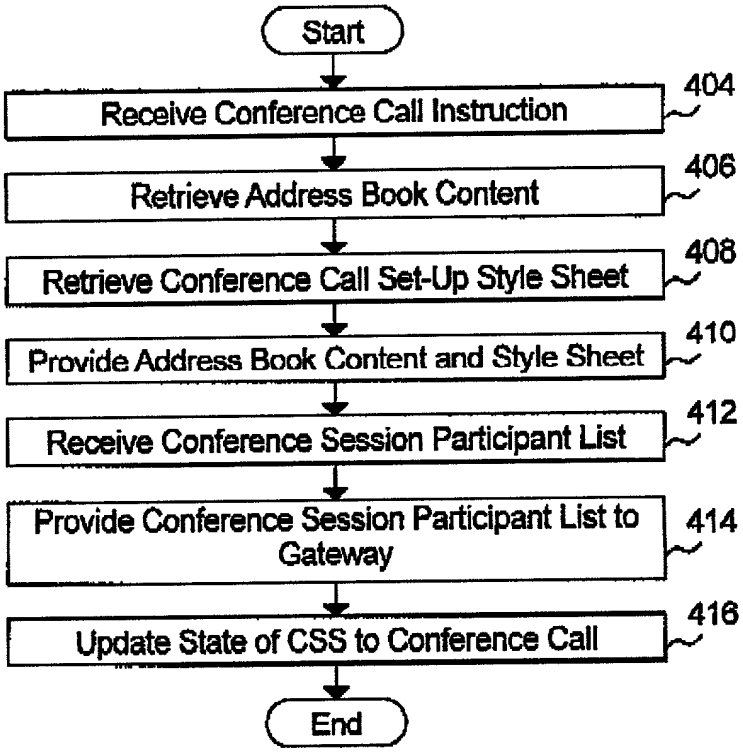
Start
Receive Conference Call Instruction
404
Retrieve Address Book Content
406
Retrieve Conference Call Set-Up Style Sheet
408
Provide Address Book Content and Style Sheet
410
Receive Conference Session Participant List
412
Provide Conference Session Participant List to Gateway
414
Update State of CSS to Conference Call
416
End

Figure 12h

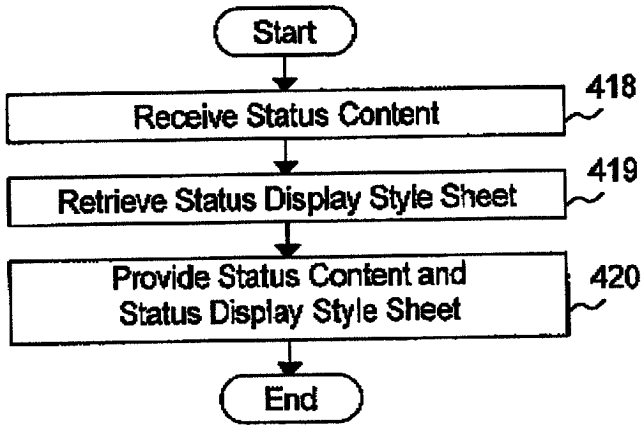

Figure 12i

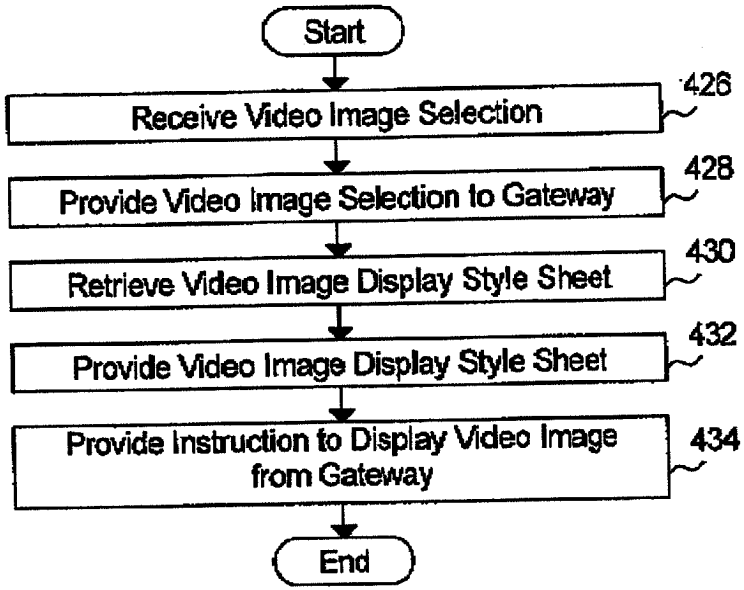

Figure 12j

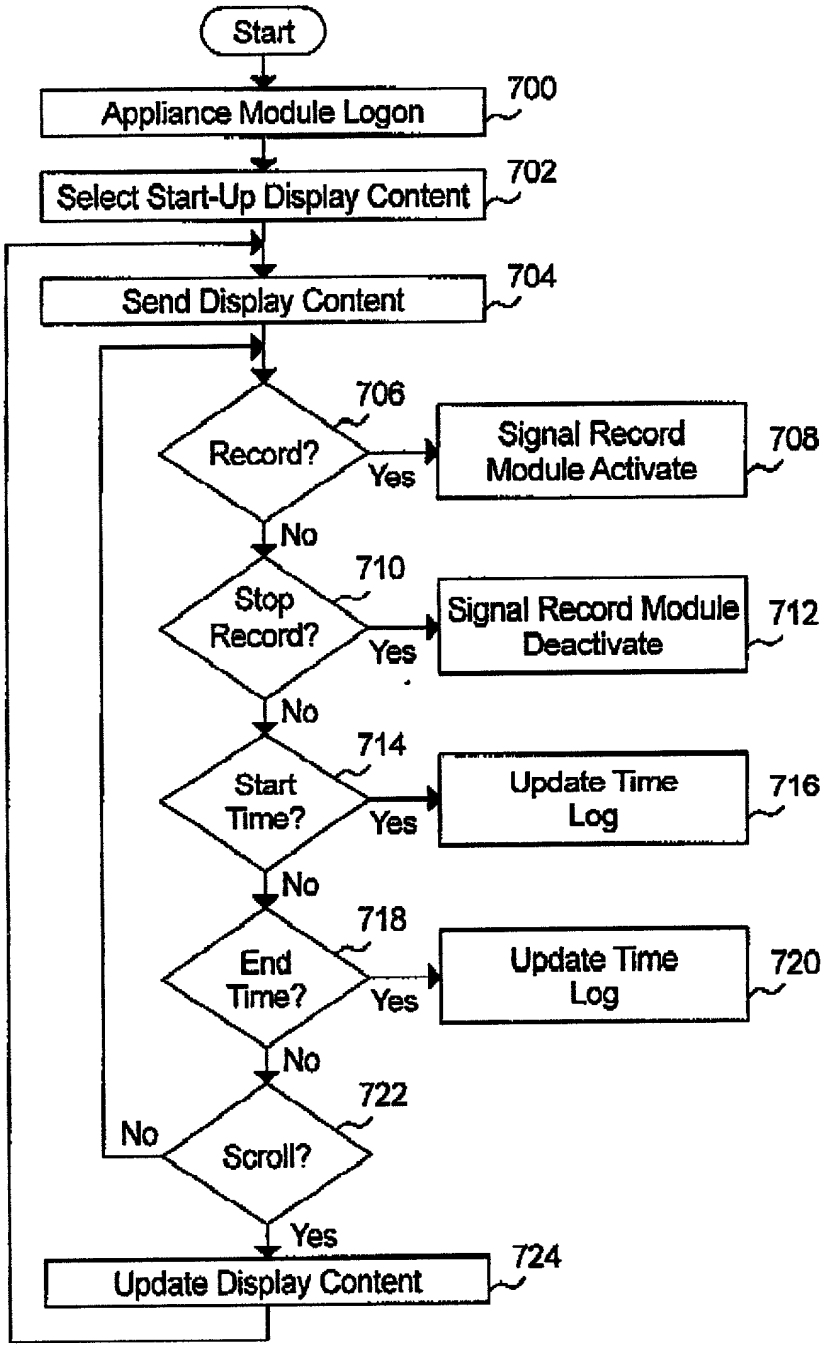
Start
Appliance Module Logon
700
Select Start-Up Display Content
702
Send Display Content
704
Record?
706
Yes
Signal Record Module Activate
708
No
Stop Record?
710
Yes
Signal Record Module Deactivate
712
No
Start Time?
714
Yes
Update Time Log
716
No
End Time?
718
Yes
Update Time Log
720
No
Scroll?
722
No
Yes
Update Display Content
724

Figure 13

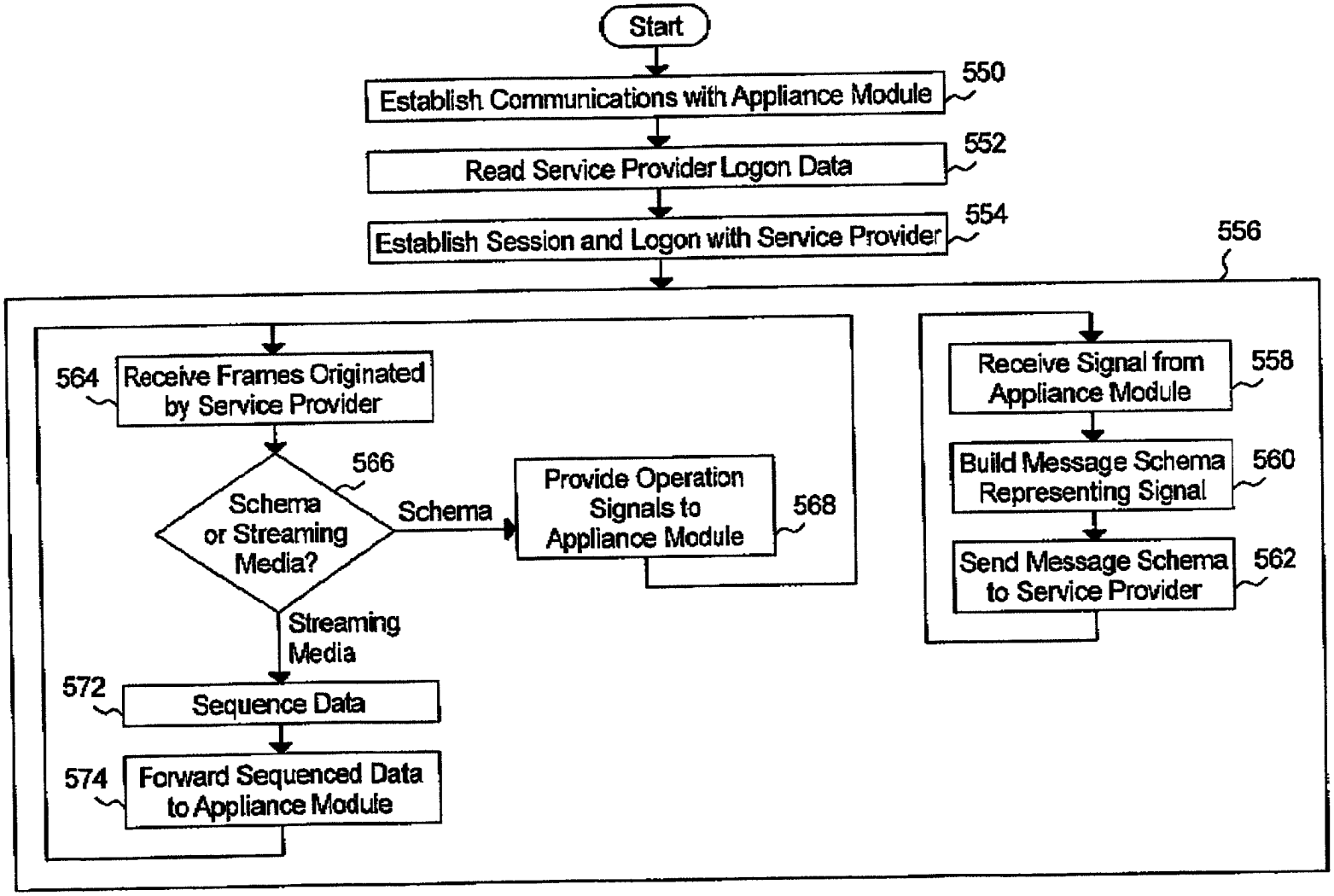
Start
Establish Communications with Appliance Module
550
Read Service Provider Logon Data
552
Establish Session and Logon with Service Provider
554
556
564
Receive Frames Originated by Service Provider
566
Schema or Streaming Media?
Schema
Provide Operation Signals to Appliance Module
568
Streaming Media
572
Sequence Data
574
Forward Sequenced Data to Appliance Module
Receive Signal from Appliance Module
558
Build Message Schema Representing Signal
560
Send Message Schema to Service Provider
562

Figure 14

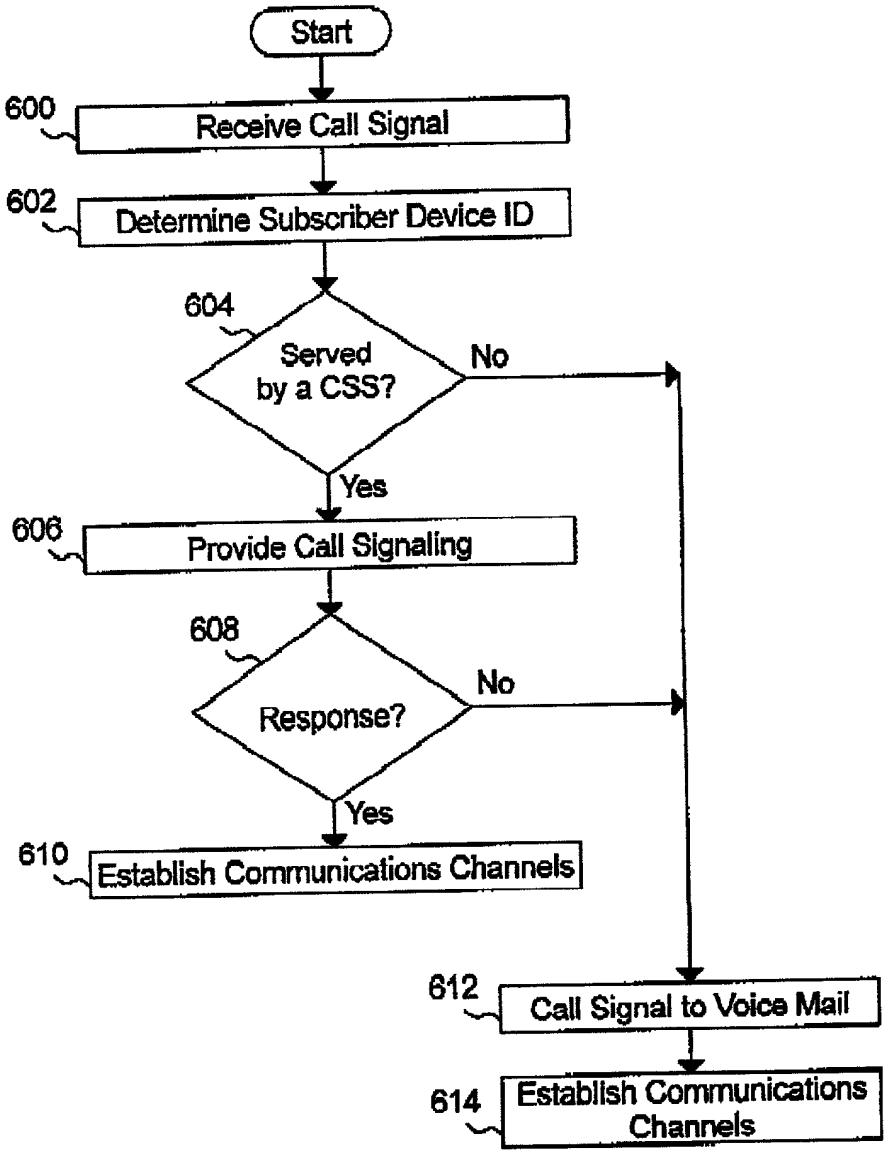
Start
600
Receive Call Signal
602
Determine Subscriber Device ID
604
Served by a CSS?
No
Yes
606
Provide Call Signaling
608
Response?
No
Yes
610
Establish Communications Channels
612
Call Signal to Voice Mail
614
Establish Communications Channels

Figure 15

2090E0" 2222607

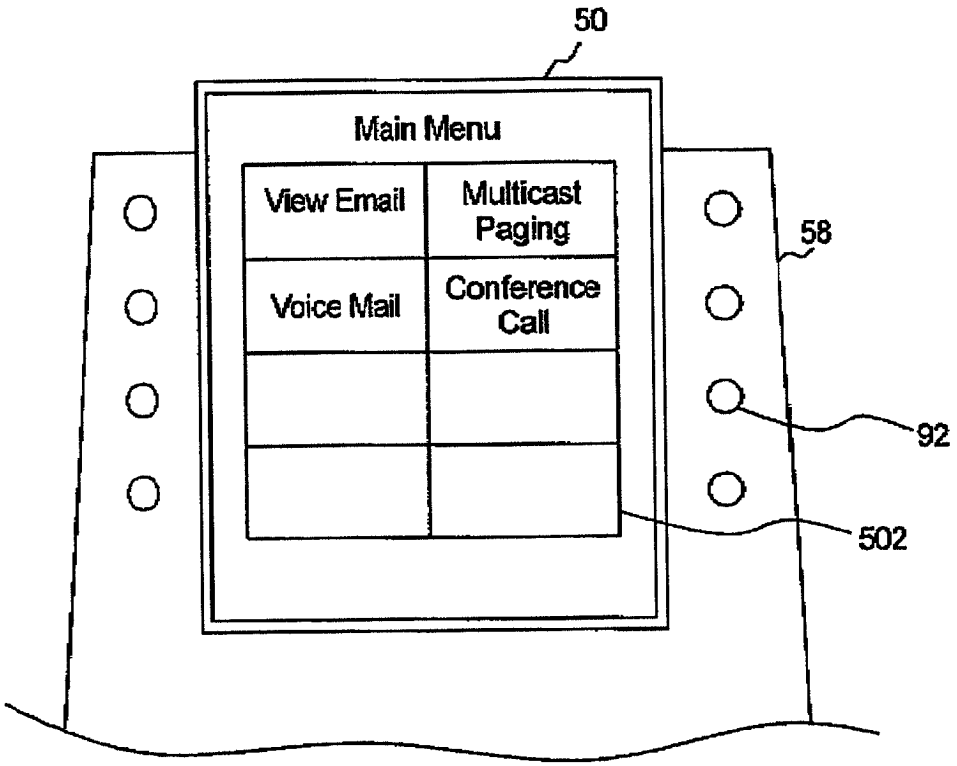

Figure 16a

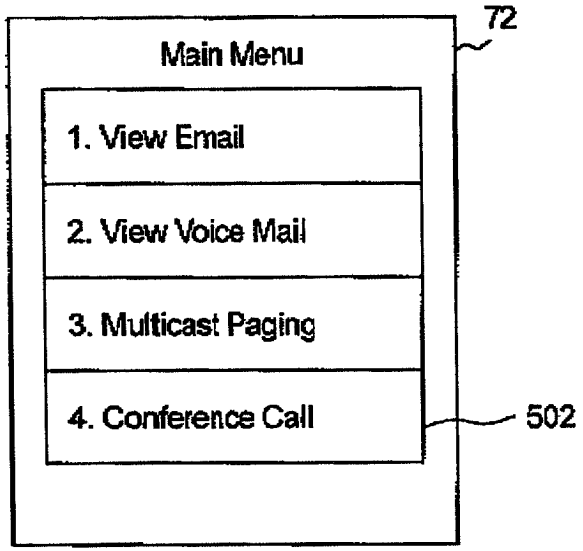

Figure 16b

20060224260T

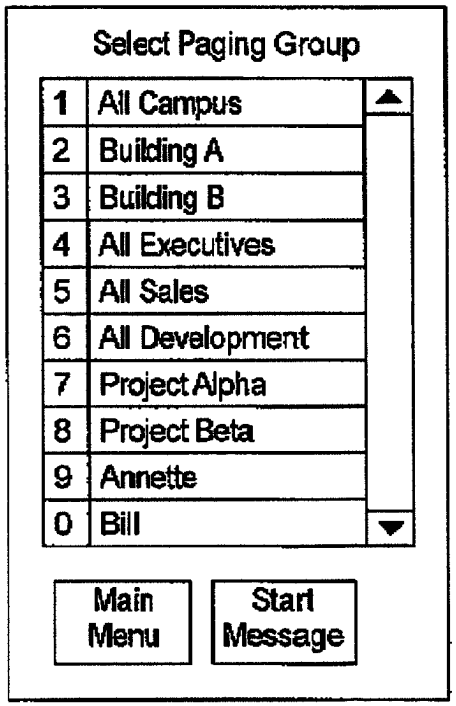

Figure 16c

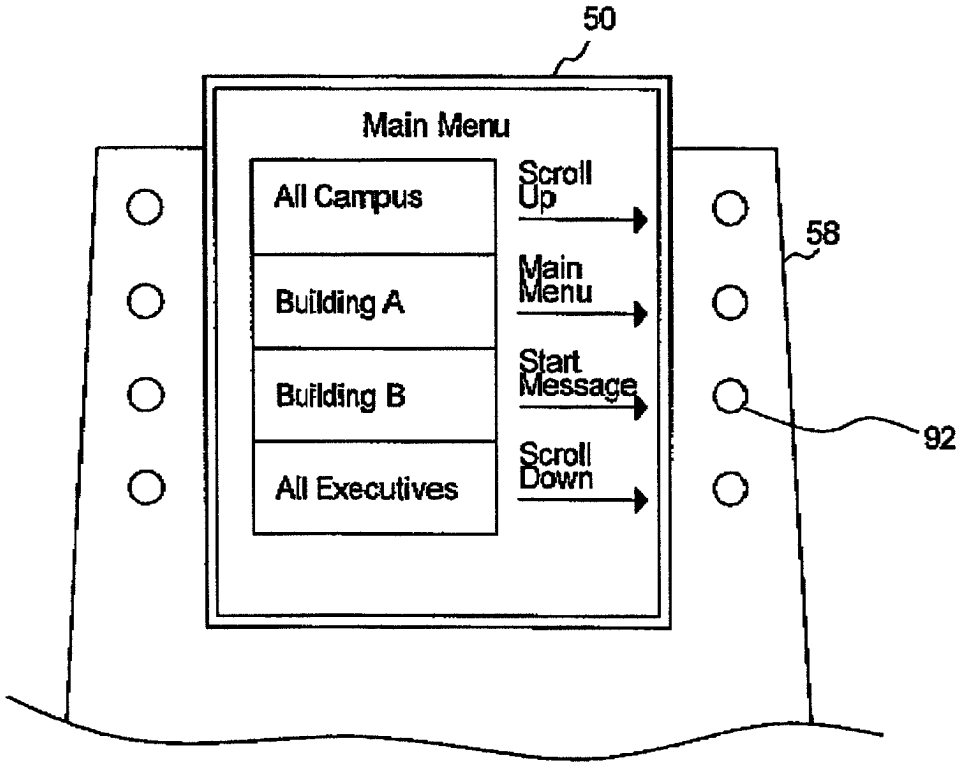

Figure 16d

20020122268

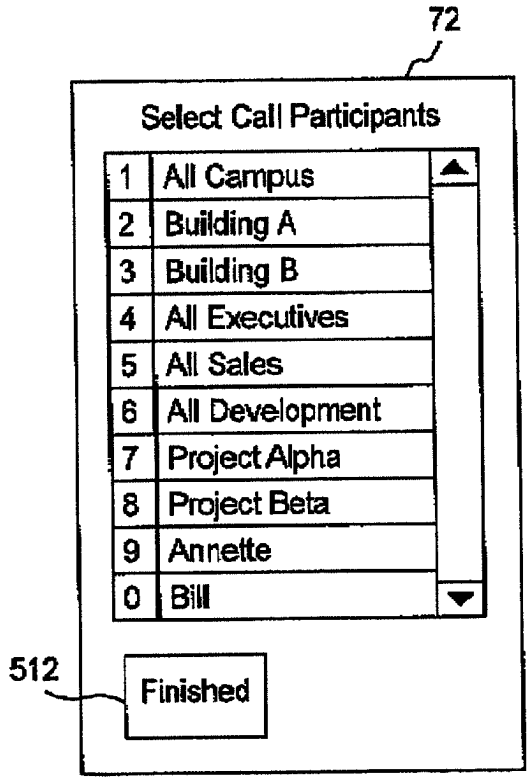

Figure 16e

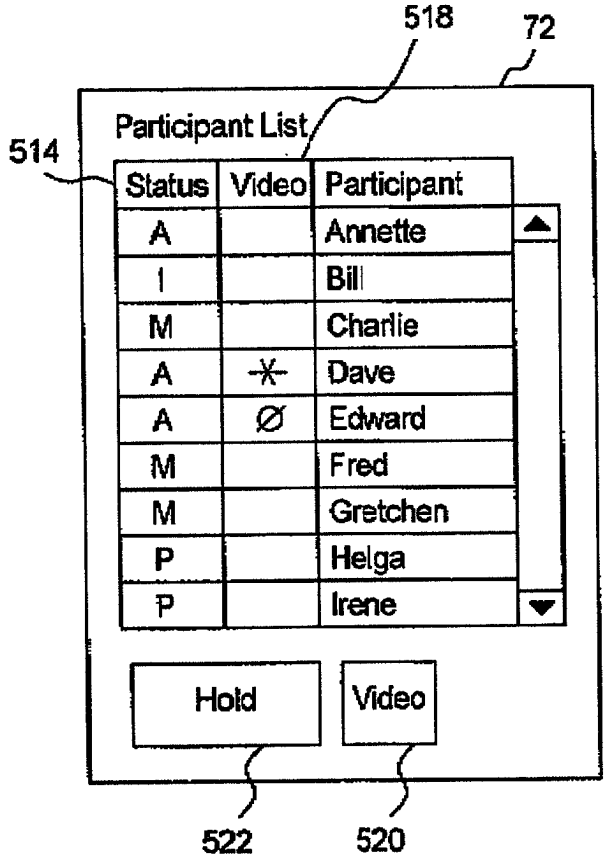

Figure 16f

EP 0 999 542 A2

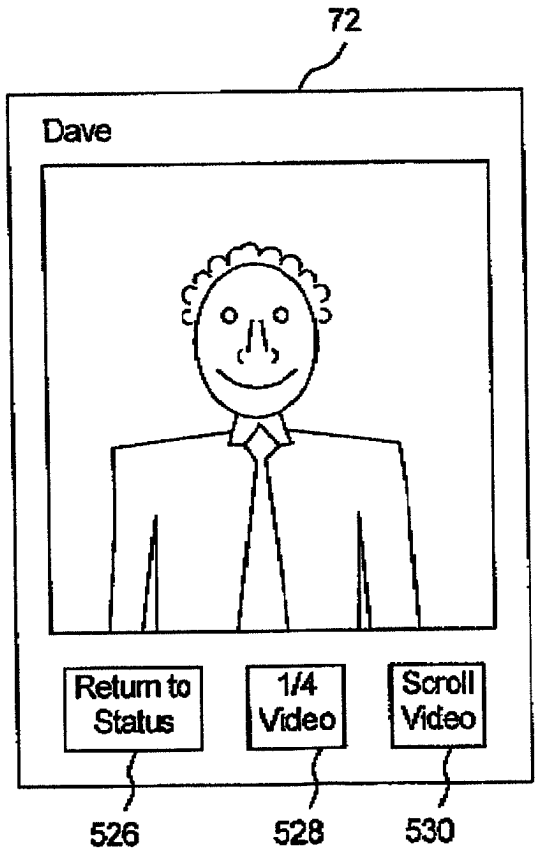

Figure 16g

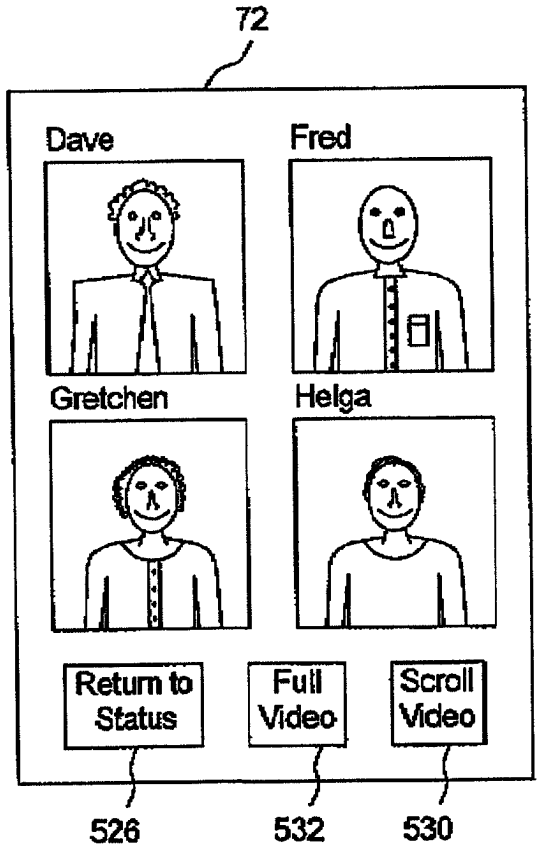

Figure 16h